

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A high-density electrode, obtained by impregnating a high-density electrode which comprises an electrode active substance and carbon fiber having a fiber filament diameter of 1 to 1,000 nm and has a porosity of 25% or less, with a solid polymer electrolyte,

wherein the electrode active substance is a carbon material,

wherein the carbon material contains a graphite material in an amount of 50 mass% or more, and the bulk density of the electrode is 1.7 g/cm<sup>3</sup> or more, and

wherein the graphite material is carbon particles containing, in an amount of 50 mass% or more, graphite particles satisfying the following requirements:

(1) C<sub>0</sub> of a (002) plane as measured by means of X-ray diffractometry is 0.6900 nm, L<sub>a</sub> (the size of a crystallite as measured along the a-axis) is greater than 100 nm, and L<sub>c</sub> (the size of a crystallite as measured along the c-axis) is greater than 100 nm;

(2) BET specific surface area is 0.2 to 5 m<sup>2</sup>/g;

(3) true density is 2.20 g/cm<sup>3</sup> or more; and

(4) laser Raman R value (the ratio of the intensity of a peak at 1,360 cm<sup>-1</sup> in a laser Raman spectrum to that of a peak at 1,580 cm<sup>-1</sup> in the spectrum) is 0.01 to 0.9.

2. (original): The high-density electrode as claimed in claim 1, wherein the carbon fiber is graphite carbon fiber which has undergone thermal treatment at 2,000°C or higher.

3. (previously presented): The high-density electrode as claimed in claim 1, wherein the carbon fiber is graphite carbon fiber having a surface onto which an oxygen-containing functional group has been introduced through oxidation treatment.

4. (previously presented): The high-density electrode as claimed in claim 1, wherein the carbon fiber is graphite carbon fiber containing boron in an amount of 0.1 to 100,000 ppm.

5. (previously presented): The high-density electrode as claimed in claim 1, wherein the amount of the carbon fiber is 0.05 to 20 mass%.

6. (previously presented): The high-density electrode as claimed in claim 1, wherein the carbon fiber has an average aspect ratio of 5 to 50,000.

7. (previously presented): The high-density electrode as claimed in claim 2, wherein the graphite carbon fiber has, at a (002) plane, an average interlayer distance ( $d_{002}$ ) of 0.344 nm or less as measured by means of X-ray diffractometry.

8. (previously presented): The high-density electrode as claimed in claim 1, wherein the carbon fiber has, in its interior, a hollow structure.

9. (previously presented): The high-density electrode as claimed in claim 1, wherein the carbon fiber contains branched carbon fiber.

10. (canceled).

11. (currently amended): The high-density electrode as claimed in ~~claim 10~~ claim 1, wherein the carbon material contains Si.

12. (canceled).

13. (currently amended): The high-density electrode as claimed in ~~claim 10~~ claim 1, wherein, before being formed into an electrode, the carbon material serving as the electrode active substance is in the form of carbonaceous particles satisfying the following requirements:

- (1) average roundness as measured by use of a flow particle image analyzer is 0.70 to 0.99; and
- (2) average particle size as measured by means of laser diffractometry is 1 to 50  $\mu\text{m}$ .

14. (canceled).

15. (currently amended): The high-density electrode as claimed in ~~claim 14~~ claim 1, wherein the graphite material contains boron.

16. (currently amended): The high-density electrode as claimed in ~~claim 14~~ claim 1, wherein, before being formed into an electrode, the carbon material serving as the electrode active substance is in the form of carbon particles containing, in an amount of 50 mass% or more, graphite particles satisfying the following requirements:

- (1) average roundness as measured by use of a flow particle image analyzer is 0.70 to 0.99; and
- (2) average particle size as measured by means of laser diffractometry is 1 to 50  $\mu\text{m}$ .

17. (canceled).

18. (canceled).

19. (canceled).

20. (canceled).

21. (canceled).

22. (canceled).

23. (canceled).

24. (canceled).

25. (canceled).

26. (canceled).

27. (canceled).

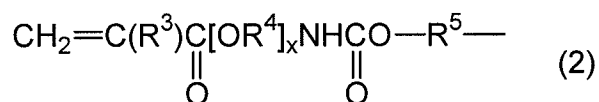
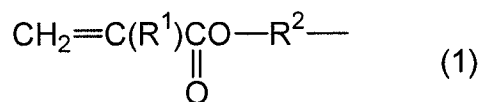
28. (canceled).

29. (canceled).

30. (previously presented): The high-density electrode as claimed in claim 1, containing a carbon fiber having a filament diameter of 1 to 1,000 nm in an amount of 0.2 to 20 mass%, and having a capacity density of 100 mAh/g or higher.

31. (original): The high-density electrode as claimed in claim 30, wherein the electrode absorbs 3  $\mu$ l of propylene carbonate within 500 seconds at 25°C and 1 atm.

32. (previously presented): The high-density electrode as claimed in claim 1, wherein the solid polymer electrolyte comprises at least one compound having as a constituent a unit represented by formula (1) and/or (2):



wherein  $\text{R}^1$  and  $\text{R}^3$  each represents a hydrogen atom or an alkyl group;  $\text{R}^2$  and  $\text{R}^5$  each represents a divalent group containing oxyalkylene group, fluorocarbon group and/or carbonate group;  $\text{R}^4$  represents a divalent group having 10 or less carbon atoms;  $\text{R}^2$ ,  $\text{R}^4$  and  $\text{R}^5$  may each include a hetero atom, and may have a linear, branched or cyclic structure; x represents 0 or an integer of 1 to 10; and in a case where two or more of polymerizable functional groups represented by the above formulae are contained in one molecule,  $\text{R}^1$  to  $\text{R}^5$  and x in one functional group may be the same with or different from those symbols in the other functional groups.

33. (previously presented): The high-density electrode as claimed in claim 1, wherein a non-aqueous solvent employed for the solid polymer electrolyte contains at least one species

selected from the group consisting of ethylene carbonate, diethyl carbonate, dimethyl carbonate, methyl ethyl carbonate, propylene carbonate, butylene carbonate, and vinylene carbonate.

34. (previously presented): A battery comprising a high-density electrode as recited in claim 1.

35. (previously presented): A secondary battery comprising a high-density electrode as recited in claim 1.

36. (canceled).

37. (canceled).

38. (canceled).

39. (canceled).